The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A feed additive for ruminant animals comprising a sufficient amount of a nonionic surfactant to enhance the utilization of a feedstuff by the animal.

2. A feed additive of Claim 1 which further comprises a sufficient amount of an antioxidant agent to enhance the oxidative stability of the nonionic surfactant.

3. A feed additive of Claim 2 wherein the nonionic surfactant and the antioxidant agent are coated on a particulate carrier.

4. A feed additive of Claim 1 wherein the nonionic surfactant is selected from the group consisting of polyoxyethylenesorbitan monooleate, polyoxyethylene-sorbitan trioleate, polyoxyethylenesorbitan monostearate, alkyltrimethylammonium bromides, dodecyltrimethylammonium bromide, hexadecyltrimethylammonium bromide, mixed alkyltrimethylammonium bromide, tetradecyltrimethylammonium bromide, benzalkonium chloride, benzethonium chloride, benzyldimethyldodecylammonium bromide, benzyldimethylhexadecylammonium bromide, benzyltrimethylammonium chloride, benzyltrimethylammonium methoxide, cetylpyridinium bromide, cetylpyridinium chloride, cetyltributylphosphonium bromide, cetyltrimethylammonium bromide, decamethonium bromide, dimethyldioctadecylammonium bromide, methylbenzethonium chloride, methyl mixed trialkyl ammonium chloride, methyltrioctylammonium chloride, n,n',mb'-polyethylene(10)-n-tallow-1,3-diamino-propane and 4-picoline dodecyl sulfate.

5. A feed additive of Claim 4 wherein the nonionic surfactant is selected from the group consisting of polyoxyethylenesorbitan monooleate and polyoxy-ethylenesorbitan trioleate.

6. A feed additive of Claim 3 wherein the nonionic surfactant comprises from about 10% to about 70% (wt/wt) of surfactant based on the combined weight of the particulate carrier substrate and coating.

7. A feed additive of Claim 6 wherein the nonionic surfactant comprises from about 40% to about 60% (wt/wt) of surfactant based on the combined weight of the particulate carrier substrate and coating.

8. A feed additive of Claim 2 wherein the antioxidant agent is selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), ethoxyquin, propyl gallate, tertiary butyl hydroquinone (TBHQ) and tocopherols.

9. A feed additive of Claim 3 wherein the antioxidant agent is present in an amount from about 100 to about 2000 ppm based on the surfactant employed in the coating.

10. A feed additive of Claim 3 wherein the solid particulate carrier is selected from the group consisting of celite, diatomaceous earth and silica

11. A feed additive of Claim 1 which further comprises at least one digestion enhancing agent.

12. A feed additive of Claim 11 wherein the at least one digestion enhancing agent is a lactic acid bacteria inoculum.

13. A feed additive of Claim 11 wherein the at least one digestion enhancing agent is monensin.

14. A method of enhancing feed utilization efficiency in a ruminant animal, comprising adding to the feed of the animal a sufficient amount of a feed additive to enhance the utilization of the feed by the animal, wherein the feed additive comprises a nonionic surfactant.

15. A method of Claim 14 wherein the fee additive further comprises and a sufficient amount of an antioxidant agent to enhance the oxidative stability of the nonionic surfactant.

16. A method of Claim 15 wherein the nonionic surfactant and the antioxidant agent are coated on a particulate carrier substrate.

17. A method of Claim 14 wherein the nonionic surfactant is selected from the group consisting of polyoxyethylenesorbitan monooleate, polyoxyethylenesorbitan trioleate, polyoxyethylenesorbitan monostearate, alkyltrimethylammonium bromides, dodecyltrimethylammonium bromide, hexadecyltrimethylammonium bromide, mixed alkyltrimethylammonium bromide, tetradecyltrimethylammonium bromide, benzalkonium chloride, benzethonium chloride, benzyldimethyldodecylammonium bromide, benzyldimethylhexadecylammonium bromide, benzyltrimethylammonium

chloride, benzyltrimethylammonium methoxide, cetylpyridinium bromide, cetylpyridinium chloride, cetyltributylphosphonium bromide, cetyltrimethylammonium bromide, decamethonium bromide, dimethyldioctadecylammonium bromide, methylbenzethonium chloride, methyl mixed trialkyl ammonium chloride, methyltrioctylammonium chloride, n,n',mb'-polyethylene(10)-n-tallow-1,3-diamino-propane and 4-picoline dodecyl sulfate.

18. A method of Claim 14 wherein the nonionic surfactant is selected from the group consisting of polyoxyethylenesorbitan monooleate and polyoxyethylenesorbitan trioleate.

19. A method of Claim 14 wherein the nonionic surfactant comprises from about 0.01 to 1% (w/w) of the dry weight of the feed.

20. A method of Claim 19 wherein the nonionic surfactant comprises from about 0.01 to 0.3% (w/w) of the dry weight of the feed.

21. A method of Claim 15 wherein the antioxidant agent is selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), ethoxyquin, propyl gallate, tertiary butyl hydroquinone (TBHQ) and tocopherols.

22. A method of Claim 16 wherein the antioxidant agent is present in an amount from about 100 to about 2000 ppm based on the surfactant employed in the coating.

23. A method of Claim 16 wherein the particulate carrier substrate is selected from the group consisting of celite, diatomaceous earth and silica

24. A method of Claim 14 which further comprises adding at least one digestion enhancing agent to the feed.

25. A method of Claim 24 wherein the at least one digestion enhancing agent is a lactic acid bacteria inoculum.

26. A method of Claim 24 wherein the at least one digestion enhancing agent is monensin.